FINAL

ENVIRONMENTAL ASSESSMENT FOR THE INSTALLATION OF PERMANENT VEHICLE BARRIERS ON THE TOHONO O'ODHAM NATION OFFICE OF BORDER PATROL TUCSON SECTOR, ARIZONA

U.S. Department of Homeland Security
U.S. Customs and Border Protection
Washington, D.C.

DECEMBER 2006

FINDING OF NO SIGNIFICANT IMPACT
For Proposed Installation of Permanent Vehicle Barriers
On the Tohono O'odham Nation
Office of Border Patrol, Tucson Sector, Ajo and Casa Grande Stations

PROJECT HISTORY: The Office of Border Patrol (OBP) is a law enforcement entity of United States (U.S.) Customs and Border Protection (CBP), a component of the U.S. Department of Homeland Security (DHS). The OBP's priority mission is to prevent the entry of terrorists and terrorist weapons and to enforce the laws that protect the U.S. homeland by the detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or contraband across the sovereign borders of the U.S.

During recent years, illegal aliens (IA) and illegal entry into the U.S. along the U.S.-Mexico border in southwest Arizona has been a severe problem. Consequently, the OBP has significantly increased its emphasis on deterrence. Deterrence is achieved only when the OBP has the ability to create and convey the immediate, credible, and absolute certainty of detection and apprehension. As such, tactical infrastructure components, such as roads and vehicle barriers, are a critical element in the current enforcement strategy. Developing trends such as the recognition of environmental preservation concerns and the increase of criminal trans-boundary activities (including trafficking in people, drugs, and terrorism efforts) continue to pose a border enforcement challenge and compound the need for tactical infrastructure along the international border. To this end, CBP proposes to install tactical infrastructure along the southwest border and the TON.

CBP's relationship with the Tohono O'odham Nation (TON) has been ongoing for many years and is demonstrated through the numerous projects that the CBP has implemented on the TON. Coordination between the TON and CBP has occurred for not only this project but many others that have occurred on the TON. Past projects include: the installation of Papago Farms Camp, the construction of the Joint Processing Center at San Miguel, the installation of several OBP checkpoints located throughout the TON, and the installation of rescue beacons within the TON. Furthermore, the OBP has, over the past years, maintained patrol roads, established remote forward operating bases (Papago Farms Camp), and conducted regular and recurring patrol activities, all of which have been coordinated with the appropriate levels of the TON government and Tribal Law enforcement personnel.

PROJECT LOCATION: The proposed project corridor for the PVB and related improvements is located within the OBP's Tucson Sector, Ajo and Casa Grande Station's Area of Operations (AO). The southern boundary of the study corridor is defined by the U.S.–Mexico border throughout the TON. Additionally, the construction of the permanent vehicle barriers (PVB) will occur within the Roosevelt Easement to the greatest extent possible. The improvements to the existing patrol and access roads as well as all construction activities associated with these improvements would occur within lands owned and managed by the TON.

PURPOSE AND NEED: The purpose of the Proposed Action Alternative is to facilitate the OBP's mission to gain, maintain and extend control of the U.S.-Mexico border. The need for the proposed project is to stop illegal vehicle traffic from entering the TON, save lives, and prevent terrorists and terrorist weapons from entering the U.S.

The need for the Proposed Action Alternative is also to provide flexibility in the deployment of OBP agents, to reduce OBP agent patrol and response time, to protect sensitive biological and cultural resources and public and private lands from illegal vehicle traffic, and to satisfy the requirements of the Illegal Immigration Reform and Immigrant Responsibility Act to construct and improve border infrastructure to enhance National security.

ALTERNATIVES: Five alternatives were considered: the No Action Alternative, the Proposed Action Alternative, the 2-Track Primitive Trail and Permanent Vehicle Barriers (PVB) along the Border Alternative, the New Patrol Road and PVBs along the Border Alternative, and the PVBs on the Existing Patrol Road Alternative.

Alternative 1: No Action Alternative: The No Action Alternative would preclude the installation of any PVBs, as well as improvements to the existing border patrol road and access roads on the TON. Consequently, the OBP's deterrence and apprehension efficiency along the international border in the TON would remain limited due to the lack of infrastructure. Limited infrastructure along the TON reach of border makes this area vulnerable to potential shifting IA traffic. Illegal entries would continue, and potentially increase, resulting in the damage and degradation of habitat as well as possibly increasing deaths and rescues within the TON. Illegal vehicle entry and smuggling along the international border would not be deterred under this alternative.

Alternative 2: Proposed Action Alternative: The Proposed Action Alternative includes the installation and maintenance of PVBs at the U.S.-Mexico border within the TON, the creation of a 2-track primitive trail, and the use of the existing patrol road, ranch roads, and turn-arounds to facilitate construction and maintenance of the PVBs. It also includes the improvement and maintenance of the existing patrol road near the border and access roads within the TON. The ranch roads are not approved or maintained roads. These roads were created largely by illegal traffic and occur primarily within the Roosevelt Reservation.

The Proposed Action Alternative will include the construction of approximately 50 miles of PVBs, 35 miles of 2-track primitive trail, 3 miles of temporary vehicle barriers, 0.5 miles of temporary turn-arounds, 0.2 miles of permanent turn-arounds, improvements to approximately 70 miles of existing border road and 11 miles of access roads, and future routine maintenance of the PVBs and improved border road. Furthermore, this alternative will also use approximately 6 miles of existing ranch road located within the Roosevelt Reservation and 9 miles of the existing patrol road located on the TON to install the PVBs in areas where avoidance of sensitive resources (*i.e.*, saguaros [*Carnegiea gigantean*], California barrel cactus [*Ferocactus cylindraceus*], and cotton-top cactus [*Echinocactus polycephalus*]) is necessary. It should be noted that further modification of the proposed construction route could occur in an effort to ensure maximum avoidance of sensitive resources. Upon completion of the construction process, the ranch road and 2-track primitive trail will only be used for necessary maintenance of the PVBs and will not be further improved or patrolled.

Additionally, three locations within the project corridor that are currently used as traditional transboundary migration routes by members of the TON will remain open (San Miguel Gate, Serapio's Gate, and Papago Farms Gate). Dragging will continue on those roads that are currently dragged, where applicable.

The Proposed Action Alternative will also include the replacement of nuisance drainage structures and the construction of new drainage structures and low water crossings along the patrol and access roads. Water will be trucked into the construction area from various wells on the TON in order to facilitate the construction of the proposed infrastructure. The water will be obtained through pre-existing wells located at Menager's Village, the San Miguel Joint Processing Center, and one new well to be installed at the OBP Papago Farms Camp.

Staging areas will be assembled approximately every 2 miles. The staging areas will be no more than 1,000 square feet in size and will be located within the footprint of the existing border road. Lastly, due to heat constraints, concrete pours associated with the low water crossings, PVBs, and other drainage structures will often have to occur during nighttime hours. In order to accomplish these types of activities and to illuminate staging areas the use or portable lights is being proposed. It is estimated that no more than 10 to 14 lights will be in operation at any one time. The portable light systems will be towed to the desired construction location, as needed. Upon completion of construction activities, all portable lights will be removed from the project corridor.

Alternative 3: 2-Track Primitive Trail and PVBs along the Border Alternative: Under this alternative, the PVB would have been installed immediately adjacent to the U.S.-Mexico border, regardless of sensitive resources, through the construction of a 2-track primitive trail (16 feet wide). This alternative would not have used the existing ranch road or patrol road for installation purposes nor would it have deviated north to avoid any sensitive resources. The 2-track primitive trail would have paralleled the PVBs and would have extended for approximately 50 miles. The road improvements, turn-arounds, staging areas, gates used for trans-boundary migration, work schedules, portable lighting systems, and dragging operations described under the Proposed Action Alternative would have been implemented in the same manner for this alternative.

In summary, Alternative 3 would have included approximately 50 miles of PVBs and 2-track primitive trail, 2.5 miles of temporary vehicle barriers, 0.7 miles of temporary turn-arounds, 0.2 miles of permanent turn-arounds, improvements to approximately 70 miles of existing border road and 11 miles of access roads, and future routine maintenance of the PVBs and improved border road.

Alternative 4: New Patrol Road and PVBs along the Border Alternative: Under this alternative, the PVB would have been installed immediately adjacent to the U.S.-Mexico border regardless of sensitive resources. Furthermore, this alternative would not have used an existing ranch road for installation purposes nor would it have deviated north to avoid any sensitive resources. The primary difference between this alternative and Alternative 3 is that a new all-weather patrol road (28 feet wide) would have been constructed adjacent to the border instead of

a 2-track primitive trail (16 feet wide). PVBs would have been installed along the southern toe of the all-weather patrol road, adjacent to the border.

Additionally, the existing access roads and the patrol road where it deviates north of the border would have been improved in an effort to afford the construction equipment a drivable road to access the border. It should be noted that the existing patrol road would not have been improved in areas where it parallels the U.S.-Mexico border. The improvements to the existing access roads and patrol road (where it deviates north), temporary vehicle barriers, turn-arounds, bivouac sites, and staging areas would remain the same as described under the Proposed Action Alternative.

In summary, Alternative 4 would have included approximately 50 miles of PVBs, 2.5 miles of temporary vehicle barriers, construction of 50 miles of new 28-foot wide all-weather patrol road, improvement to approximately 19.5 miles of existing patrol road and 11 miles of access roads, and routine maintenance of the PVBs and patrol road. OBP would have conducted normal patrol operations along the new border road and would have continued to drag portions of the existing patrol road.

Alternative 5: PVBs along the Existing Patrol Road Alternative: The final alternative carried forward for analysis includes road improvements to the existing border and access roads, installation of PVBs, and any required maintenance activities upon completion of the proposed project. The improvements to the existing road under this alternative would have been the same as those presented in the Proposed Action Alternative. The PVBs would have been installed along the southern toe of the existing border road located approximately 60 feet north of the border. Similar to the Proposed Action Alternative, in areas where the terrain dictates that vehicle passage is impractical, the PVBs would have been installed to the edge of that terrain or feature. Temporary vehicle barriers would have been placed, where practicable, in those areas where installing PVBs is not feasible due to topographic and geologic features. No turn-arounds would have been constructed as part of this alternative because the PVBs would have been constructed adjacent to the existing patrol road. The staging areas, bivouac sites, portable lighting systems, and work schedules previously discussed in the Proposed Action Alternative would have been implemented the same under this alternative.

In summary, Alternative 5 would include approximately 51 miles of PVBs, 2.5 miles of temporary vehicle barriers, improvements to approximately 70 miles of existing border road and 11 miles of access roads, and future routine maintenance of the PVBs and improved border road.

ENVIRONMENTAL CONSEQUENCES: The total footprint of the Proposed Action Alternative is approximately 299 acres. Of this, approximately 203 acres will be temporarily impacted and will be rehabilitated upon completion of the construction. Approximately 96 acres of soils, vegetation, wildlife habitat, and potential habitat for protected species would be permanently altered throughout the project corridor (see Sections 4.2.2, 4.5.2, 4.6.2, and 4.7.2 of the Final Environmental Assessment [EA]). Through the use of environmental design measures and due to the vast amounts of similar habitat surrounding the project corridor these impacts

will be insignificant (see Section 6.0 of the Final EA). Air emissions from construction activities will result in temporary adverse air quality impacts in the study corridor. The overall air quality will be improved as all-weather road surfaces will reduce the amount of wind blown dust generated by OBP vehicle traffic (see Section 4.9.2 of the Final EA). Under the Proposed Action Alternative, increased erosion during construction is possible; however, increased sediment and turbidity will have minimal impacts on water quality (see Section 4.10.1.2 of the Final EA). Additionally, because of the low water usage (*i.e.,* 62.35 acre-feet over the life of the project) and a high recharge rate (*i.e.,* 2,400 acre-feet per year) in the region, no net deficit in aquifer volume or substantial lowering of groundwater supplies will occur (see Section 4.10.2.2 of the Final EA).

Also, the potential exists for indirect adverse impacts to resources outside of the project corridor resulting from shifts in IA activity. However, these impacts are considered insignificant when compared to the No Action Alternative. Indirect beneficial impacts to land use, unique and sensitive areas, soils, air quality, cultural resources, protected species and their associated habitat, as well as vegetation will result from the implementation of the Proposed Action Alternative.

No significant adverse effects to the natural or human environment, as defined in Section 1508.27 of the Council on Environmental Quality's Regulations for Implementing the National Environmental Policy Act, are expected upon implementation of the Proposed Action.

ENVIRONMENTAL DESIGN MEASURES: Environmental design measures are presented for each resource category that will be potentially affected. Many of these measures have been incorporated as standard operating procedures by the OBP on past projects. The proposed environmental design measures will be coordinated through the appropriate agencies and land managers or administrators, as required. These environmental design measures will be incorporated into the current Project Management Plan to be carried forward.

It should be noted that the TON has been an integral participant in the development of the Proposed Action Alternative. To further minimize impacts, there has been extensive coordination with the TON regarding biological and cultural resources and the associated environmental design measures. A rehabilitation plan will be developed in close coordination with the TON in an effort to minimize potential impacts to biological resources within the TON. A cultural resources research, testing, and design plan has also been submitted to the TON and Arizona State Historic Preservation Officer (SHPO) for review. Furthermore, a Memorandum of Agreement (MOA) between CBP, TON, the Bureau of Indian Affairs (BIA), and Arizona SHPO regarding cultural resources is currently being finalized and readied for execution. Additionally, the TON has passed numerous legislative resolutions (see Appendix A of the Final EA) stating that the TON favors and fully supports the OBP's proposed project.

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It is OBP's policy to reduce impacts through the sequence of avoidance, minimization, mitigation, and finally, compensation, as was demonstrated in the revisions to the Proposed Action Alternative in the Final EA. Therefore, the environmental design measures to be implemented by the OBP Ajo and Casa Grande Stations for the Proposed Action Alternative include:

General Construction Activities: Best Management Practices (BMP) will be implemented as standard operating procedures during all construction activities. Such BMPs include: proper handling, storage, and disposal of hazardous and regulated materials. Further, to minimize potential impacts from hazardous and regulated materials, all fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment system that consists of an impervious floor and bermed sidewalls capable of containing the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. Although it will be unlikely for a major spill to occur, any spill of 5 gallons or more will be contained immediately within an earthen dike, and the application of an absorbent (*e.g.*, granular, pillow, and sock) will be used to absorb and contain the spill. Any major spill of 5 gallons or more of a hazardous or regulated substance will be reported immediately to on-site environmental personnel who will notify appropriate Federal and state agencies. A Spill Prevention, Containment, and Countermeasures Plan (SPCCP) will be in place prior to the start of construction and all personnel will be briefed on the implementation and responsibilities of this plan.

All waste oil and solvents will be recycled. All non-recyclable hazardous and regulated wastes will be collected, characterized, labeled, stored, transported, and disposed of in accordance with all Federal, state, and local regulations, including proper waste manifesting procedures.

Solid waste receptacles will be maintained at staging areas. Non-hazardous solid waste (trash and waste construction materials) will be collected and deposited in on-site receptacles. Solid waste will be collected and disposed of by a local waste disposal contractor.

Soils: Vehicular traffic associated with the construction activities and operational support activities will remain on established roads to the maximum extent practicable. Areas with highly erodible soils will be given special consideration when designing the proposed project to ensure incorporation of various erosion control techniques such as, straw bales, silt fencing, aggregate materials, wetting compounds, and rehabilitation, where possible, to decrease erosion. Rehabilitation efforts of the OBP will include re-vegetating or the distribution of organic (*i.e.*, woody debris) and geological (*i.e.*, boulders and rocks) materials over the disturbed area to reduce erosion while allowing the area to naturally vegetate. This is regularly done on the Cabeza Prieta National Wildlife Refuge in an effort to rehabilitate any damaged areas. Furthermore, a rehabilitation plan will be developed through coordination with the TON Wildlife and Vegetation Management Program, CBP, and the USACE. This plan will include future potential cost of implementing any rehabilitation efforts as described in the rehabilitation plan. In addition, erosion control measures and appropriate BMPs, as required and promulgated through the Storm Water Pollution Prevention Plan (SWPPP), will be implemented before, during, and after construction activities.

Vegetation: The Arizona Department of Agriculture will be notified and proper documentation regarding the salvage of protected native plants will be submitted before construction will begin. In addition, salvaged plants will be moved to adjacent sites within the TON chosen through consultation with TON staff. Organic material will be collected and stockpiled during construction to be used in bivouac and staging areas for erosion control while the areas naturally revegetate. Additionally, any stockpiles of vegetation collected during the construction of the PVBs will be made available to the members of the TON.

Construction equipment will be cleaned using BMPs prior to entering and departing the project corridor to minimize the spread and establishment of non-native invasive plant species. Soil disturbances in temporary impact areas will be rehabilitated by the OBP. Rehabilitation will include re-vegetating or the distribution of organic and geological materials over the disturbed area to reduce erosion while allowing the area to naturally vegetate. Native seeds or plants, which are compatible with the enhancement of protected species, will be used to the extent practicable, as required under Section 7(a)(1) of the Endangered Species Act. As mentioned earlier, rehabilitation of disturbed areas will be coordinated with the TON Wildlife and Vegetation Management Program and further discussed in a separate biological document, which will include the rehabilitation plan. Through coordination with the TON, and through OBP's continual effort to minimize potential impacts to vegetation within the project corridor, the OBP has agreed to deviate away from the U.S.-Mexico border in certain areas of the project corridor in order to avoid sensitive resources to the greatest extent possible. Furthermore, biological monitors will be employed during construction activities within sensitive resource areas to make certain that these sensitive resources are avoided. Planning, funding, and details of the biological monitoring activities will be developed in the previously mentioned rehabilitation plan and separate biological document. Additionally, the disturbed and restored areas will be monitored by the OBP for the spread and eventual eradication of non-native invasive plant species as part of periodic maintenance activities.

To minimize vegetation impacts, designated travel corridors will be marked with easily observed removable or biodegradable markers, and travel will be restricted to the project corridor and staging areas.

Wildlife: Numerous migratory birds could nest in the project corridor. If it appears that construction activities may result in the take of a migratory bird, then CBP will coordinate with the USFWS and AGFD before conducting construction activities. If there was some possibility of a take, a mitigation measure that would be considered is to schedule all construction activities outside migratory bird nesting season (typically March 1 through September 1). Bird surveys would not be required if construction activities occur outside of the nesting season. If construction activities can not be scheduled outside of the nesting season, then bird surveys will be required prior to construction in order to determine the potential effects to migratory birds. As for other forms of wildlife, support post bore holes will be checked daily during construction for wildlife. Any wildlife found in the bore holes will be removed from the hole prior to placement of the post and cement.

Protected Species: In order to reduce the potential impacts to migratory food sources of the lesser long-nosed bat all agaves will be avoided. Furthermore, all saguaros, California barrel cactus, and cotton-top cactus will be avoided in an effort to minimize potential impacts to the lesser long-nosed bat, cactus ferruginous pygmy-owl, and crested caracara. Additionally, no construction activities will occur within a half mile of potential roost sites for the lesser long-nosed bat from mid April through August.

Although no desert tortoise were observed during recent biological surveys, they are assumed to be present within the project corridor because they were observed during 1992 biological surveys performed by Joint Task Force Six (JTF-6). Therefore, biological monitors will be assigned to ensure construction compliance and avoidance of tortoises during construction activities within the areas known to provide suitable habitat for desert tortoises (*i.e.*, Moreno and La Lesnas Mountains). The monitors will inspect below equipment before construction activities begin on a daily basis. Monitoring efforts regarding the number of monitors and methods used will be coordinated with the TON prior to initiation of construction activities and will be carried forwarded in the Project Management Plan. Additionally, as stated in Section 6.3, biological monitors will be employed during construction activities within sensitive resource areas to make certain that these sensitive resources are avoided. Planning, funding, and details of the biological monitoring activities will be developed in the previously mentioned rehabilitation plan and separate biological document.

Coordination to analyze effects and implementation of environmental design measures is ongoing with the USFWS Ecological Services, Arizona Game and Fish Department, and the TON Wildlife and Vegetation Management Program to ensure no take of Federal, state, or TON protected species occurs.

Cultural Resources: CBP has taken a number of steps to ensure that potential impacts to cultural resources are avoided or minimized. As an initial matter, under the MOA between CBP, TON, BIA, and the Arizona SHPO all construction will be kept within previously surveyed areas. If any cultural material is discovered during the construction efforts, then all activities will halt until the TON's Cultural Resources Manager, the Bureau of Indian Affairs Western Regional Archaeologist, and a qualified archeologist assesses the cultural remains.

Under the MOA between CBP, TON, BIA, and Arizona SHPO, CBP will ensure that any historic preservation work will be done by, or under the supervision of, a person or persons meeting the minimum standards, as defined by the National Historic Preservation Act (NHPA). Furthermore, cultural resource monitors, both professional and TON, as described in the MOA, will be employed for the duration of the construction activities. Additionally, all NHPA Section 106 compliance will be completed before any construction activities occur.

There are 55 sites that require avoidance under the Proposed Action Alternative; if these sites cannot be avoided, they will undergo National Register of Historic Places (NRHP) eligibility or data recovery testing. Avoidance of the 55 sites will be achieved by using wooden lathes and orange fiber glass markers. The markers will be placed around the site or those portions of a site

that would be potentially affected by construction and related activities. The markers will be placed a minimum of 33 feet beyond the site boundary to ensure that a buffer exists around sensitive cultural materials. In many instances, the extant border road, or access road already traverses archaeological sites. The fencing will be placed such that it restricts traffic to already affected areas and prevents further impacts to sites. It may also be necessary in some locations to place a protective organic cloth and iron plates over portions of sites that must be crossed by construction vehicles. Such extensive measures will only be used if, and where, necessary.

There are 10 sites that can not be avoided and would be adversely impacted under the Proposed Action Alternative. CBP's treatment of these sites, including testing, research, and avoidance measures, is one of the matters covered by the previously mentioned MOA and is associated Historic Property Treatment Plan. CBP will ensure that the terms of the MOA are carried out as it moves forward with construction.

Water Resources: Standard construction procedures will be implemented to minimize the potential for erosion and sedimentation during construction. All work will cease during heavy rains and will not resume until conditions are suitable for the movement of equipment and material. All fuels, waste oils, and solvents will be collected and stored in tanks or drums within a secondary containment area consisting of an impervious floor and bermed sidewalls capable of holding the volume of the largest container stored therein. The refueling of machinery will be completed following accepted guidelines, and all vehicles will have drip pans during storage to contain minor spills and drips. No refueling or storage will take place within 100 feet of a drainage. Other design measures will be implemented such as straw bales, silt fencing, aggregate materials, wetting compounds, and re-vegetation with native plant species, where possible, to decrease erosion and sedimentation. No monitoring plan for water withdrawal is required due to the limited water withdrawal as compared to the high recharge rate of the region. Furthermore, a SWPPP and all applicable Section 404/401 permit procedures will be completed before construction will be initiated within jurisdictional Waters of the U.S.

Air Quality: Mitigation measures will be incorporated to ensure that PM_{10} and $PM_{2.5}$ emission levels do not rise above the minimum thresholds per year as required per 40 CFR 51.853(b)(1). Measures will include dust suppression methods to minimize airborne particulate matter that would be created during construction activities. Standard construction BMPs such as routine watering of the patrol, drag, and access roads will be used to control fugitive dust during the construction phases of the proposed project. Additionally, all construction equipment and vehicles will be required to be kept in good operating condition to minimize exhaust emissions.

Noise: During the construction phase, short-term noise impacts are anticipated. All Occupational Safety and Health Administration (OSHA) requirements will be followed. On-site activities will be restricted to daylight hours with exceptions of concrete pours and emergency situations. Construction equipment will possess properly working mufflers and will be kept properly tuned to reduce backfires. Implementation of these measures will reduce the expected short-term noise impacts to an insignificant level in and around the construction site.

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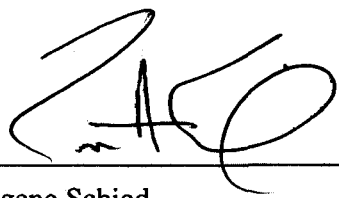
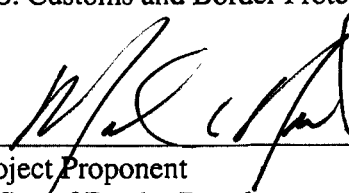
FINDING: Based upon the results of the environmental assessment and the environmental design measures to be incorporated as part of the Proposed Action, it has been concluded that the Proposed Action Alternative will not have a significant effect on the environment. Therefore, no further environmental impact analysis is warranted.



12/13/06

Eugene Schied
Assistant Commissioner, Office of Finance
U.S. Customs and Border Protection

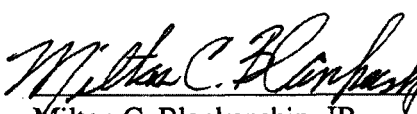
Date



12/12/06

Project Proponent
Office of Border Patrol
Tucson Sector Headquarters
Chief, Michael Nicely

Date



11 DEC 2006

Milton C. Blankenship, JR
Staff Environmental Specialist
Joint Task Force North

Date

Final

ENVIRONMENTAL ASSESSMENT FOR THE INSTALLATION OF PERMANENT VEHICLE BARRIERS ON THE TOHONO O'ODHAM NATION OFFICE OF BORDER PATROL TUCSON SECTOR, ARIZONA

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Lead Agency: U.S. Department of Homeland Security
U.S. Customs & Border Protection
Office of Finance, Asset Management
1300 Pennsylvania Ave NW
Washington, D.C. 20229

Point of Contact: Mr. Charles Parsons
U.S. Customs & Border Protection
Logistics Center – Laguna Niguel
24000 Avila Road
P.O. Box 30080
Laguna Niguel, California 92607-0080
Fax: (949) 360-2985

EXECUTIVE SUMMARY

BACKGROUND: The Office of Border Patrol (OBP) is a law enforcement entity of the United States (U.S.) Customs and Border Protection (CBP) within the U.S. Department of Homeland Security (DHS). The OBP's priority mission is to prevent the entry of terrorists and their weapons of terrorism and to enforce the laws that protect the U.S. homeland through the detection, interdiction, and apprehension of those who attempt to illegally enter or smuggle any person or contraband across the sovereign borders of the U.S. During recent years, illegal aliens (IA) have cost U.S. citizens billions of dollars annually due directly to criminal activities, as well as the cost of apprehension, detention, and incarceration of criminals; and, indirectly in loss of property, illegal participation in government programs, and increased insurance costs. This Environmental Assessment (EA) was prepared in accordance with the National Environmental Policy Act (NEPA) and will analyze the project alternatives and potential impacts to the human and natural environment from these alternatives.

PURPOSE AND NEED FOR THE PROPOSED ACTION: The purpose of the Proposed Action is to facilitate the OBP's mission to gain, maintain and extend control of the U.S.-Mexico border. The need for the proposed project is to stop illegal vehicle traffic from entering the Tohono O'odham Nation (TON), save lives, and prevent terrorists and their weapons from entering the U.S. The Proposed Action would also provide flexibility in the deployment of OBP agents, reduce OBP agent patrol and response time, protect sensitive biological and cultural resources, as well as public and private lands from illegal vehicle traffic, satisfy the requirements of the Illegal Immigration Reform and Immigrant Responsibility Act to construct and improve border infrastructure to enhance National security.

PROPOSED ACTION: The Proposed Action Alternative includes the installation and maintenance of permanent vehicle barriers (PVB) at the U.S.-Mexico border within the TON, creation of a 2-track primitive trail parallel to the PVBs and turn-arounds to facilitate construction and maintenance of the PVBs. It also includes the improvement and maintenance of the existing patrol road near the border and access roads within the TON.

The OBP proposes to construct approximately 50 miles of PVBs, 35 miles of 2-track primitive trail and 2.5 miles of temporary vehicle barriers, to improve approximately 70 miles of existing border road and 11 miles of access roads, and to conduct future, routine maintenance of the PVBs and improved roads.

ALTERNATIVES CONSIDERED:

Five alternatives were considered: The No Action Alternative (Alternative 1), the Proposed Action Alternative (Alternative 2), the 2-Track Primitive Trail and PVBs along the Border Alternative (Alternative 3), the New Patrol Road and PVBs along the Border Alternative (Alternative 4), and the PVBs on the Existing Patrol Road Alternative (Alternative 5). The No Action Alternative would preclude any construction activities; thus, illegal vehicle traffic would continue, if not increase, within the project corridor. If Alternative 3 were implemented a 2-track primitive trail and PVBs immediately adjacent to the border would be constructed. Additionally, the existing patrol road and access roads within and near the TON would be improved. Under Alternative 4, an all-weather road would be constructed parallel to the PVBs. Furthermore, only access roads and sections of the border road which deviate north of the border would be improved and maintained under Alternative 4. Alternative 5 would construct PVBs along the southern toe of the existing patrol road as well as make improvements to the existing patrol and access roads.

ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION ALTERNATIVE:

The total footprint of the Proposed Action Alternative is approximately 299 acres. Of this, approximately 203 acres would be temporarily impacted and would be rehabilitated upon completion of the construction. Approximately 96 acres of soils, vegetation, wildlife habitat, and potential habitat for protected species would be permanently altered throughout the project corridor. Through the use of environmental design measures and due to the vast amounts of similar habitat surrounding the project corridor these impacts would be insignificant.

Also, the potential exists for shifting illegal activity to result in indirect adverse impacts to resources outside of the project corridor; however, these impacts are considered insignificant when compared to the No Action Alternative. Indirect beneficial impacts to land use, unique and sensitive areas, soils, air quality, cultural resources, protected species and their associated habitat, as well as vegetation would result from the implementation of the Proposed Action Alternative.

CONCLUSIONS:

Based upon the results of the EA and the environmental design measures to be implemented, the Proposed Action Alternative would not have a significant adverse effect on the environment. Therefore, no additional NEPA documentation is warranted.

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INTRODUCTION

1.0 INTRODUCTION

This Environmental Assessment (EA) addresses the potential effects, beneficial and adverse, of the proposed installation and maintenance of permanent vehicle barriers (PVB), and the improvement and maintenance of the existing patrol road located near the border and access roads within the Tohono O'odham Nation (TON). Since the release of the Draft EA, the OBP has decided to modify its Proposed Action Alternative in an effort to minimize and potentially eliminate impacts to sensitive resources. This decision was based upon coordination between the OBP and the TON. Therefore, in order to facilitate construction of PVBs, the combination of constructing a primitive 2-track trail primitive trail immediately adjacent to the border and the use of existing roads to further minimize impacts to sensitive resources. The OBP proposes to use 6 miles of existing ranch road and 9 miles of existing patrol road to install the PVBs. Additionally, it should be noted that biological resources occurring outside of the Roosevelt Reservation on the TON were not specified in regards to location, density, or health based upon a request from the TON that all such information be precluded from public disclosure. The action is proposed by the Office of Border Patrol (OBP) Tucson Sector and would occur in the Casa Grande and Ajo stations' Area of Operation (AO) (Figure 1-1). This EA is tiered from the 2001 Supplemental Programmatic Environmental Impact Statement for Immigration and Naturalization Service (INS) and Joint Task Force 6 (JTF-6) Activities along the United States (U.S.)-Mexico Border (INS 2001) and the 1992 JTF-6 Final EA on Proposed JTF-6 Road Repair Projects on the TON (JTF-6 1992). Joint Task Force North (JTF-N [formerly known as JTF-6]) is a cooperating agency with CBP on this EA. Gulf South Research Corporation (GSRC) prepared this EA for the U.S. Army Corps of Engineers (USACE), Fort Worth District on behalf of the Department of Homeland Security (DHS), U.S. Customs and Border Protection (CBP).

This EA was prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, the Council on Environmental Quality (CEQ) Regulations implementing NEPA (Title 40 of the U.S. Code of Federal Regulations [CFR], Parts 1500-1508), and the DHS Management Directive 5100.1, which is the Environmental Planning Program Directive that outlines the CBP's procedures for the implementation of NEPA.

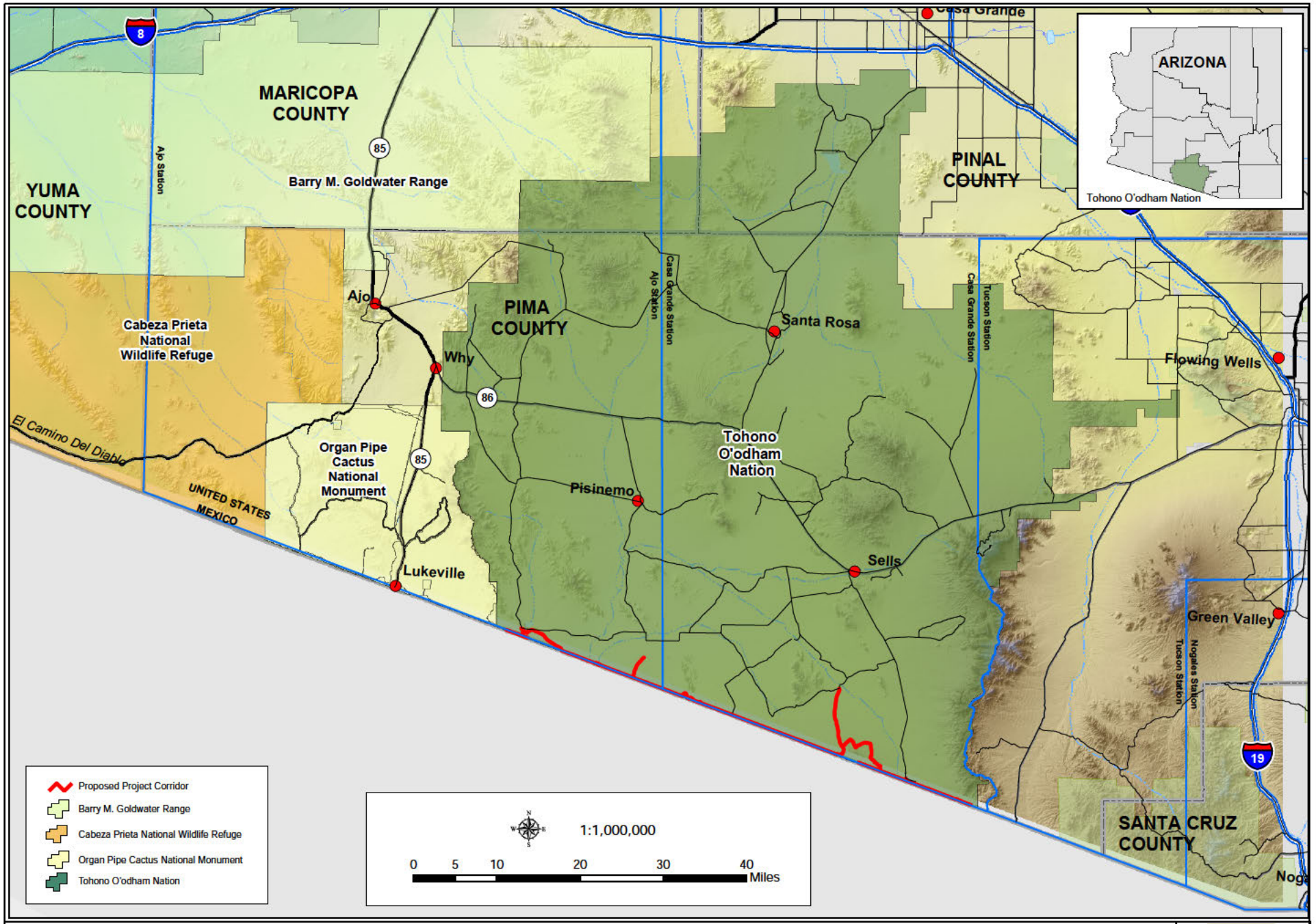

Figure 1-1: Vicinity Map

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1.1 BACKGROUND

1.1.1 CBP History

In 1924, Congress created the U.S. Border Patrol to serve as the law enforcement entity of the INS, which it did until November 25, 2002. With the passage of the Homeland Security Act of 2002 (Public Law 107-296), the DHS was established to reorganize Federal law enforcement and border protection agencies into a single department. The U.S. Border Patrol was officially transferred into the OBP, under the DHS, CBP, on March 1, 2003. The CBP also assumed many responsibilities and functions of other branches of the INS as well as those of the U.S. Customs Service and the Animal and Plant Health Inspection Service.

1.1.2 CBP Strategic Intent and Priorities

The priority mission of CBP is to prevent terrorists and terrorist weapons from entering the U.S. This priority mission involves maintaining a diverse, multi-layered approach, which includes improving security at the international borders and ports of entry (POE). It also extends the physical zone of security beyond the Nation's physical borders so that U.S. borders are the last line of defense, not the first. As part of this mission, CBP has implemented its *Comprehensive Strategy to Address the Threat of Nuclear and Radiological Terrorism* (CBP 2004) to identify and seize terrorists' assets and funding sources and enhance the support infrastructure to further develop targets and analyses.

In addition to carrying out its priority mission, CBP must fulfill its traditional missions including:

- controlling the sovereign borders of the U.S. by apprehending individuals attempting to enter the U.S. illegally;
- stemming the flow of illegal drugs and other contraband;
- protecting the Nation's agriculture and economic interest from harmful pest and diseases;
- facilitating international trade;
- collecting import duties; and
- enforcing U.S. trade, immigration and other laws of the U.S. at and beyond the Nation's borders.

Hereinafter, any individual, including terrorists and smugglers, who attempt to illegally enter the U.S. between POEs is referred to as an illegal alien (IA).

The mission of the OBP is to strengthen the U.S. borders to prevent the entry of IAs, terrorist weapons, narcotics and other contraband. The principle objective of the OBP is to apply

appropriate levels of OBP personnel, intelligence, technology, and infrastructure resources to increase the level of operational effectiveness until the likelihood of apprehension is sufficient to be an effective deterrent that conveys an absolute certainty of detection and apprehension.

During recent years, the OBP has significantly increased its emphasis on deterrence. Deterrence is achieved only when the OBP has the ability to create and convey the immediate, credible, and absolute certainty of detection and apprehension. As such, tactical infrastructure components, such as vehicle barriers and access roads are a critical element. Trends such as the continued urbanization and industrialization of the immediate border, the recognition of environmental preservation concerns, and the increase of criminal trans-boundary activities (including trafficking in people, drugs, and terrorism efforts) continue as a border enforcement challenge and increase the need for tactical infrastructure along the international border.

1.2 COOPERATING/REVIEWING AGENCIES

1.2.1 Joint Task Force North

As previously mentioned, JTF-N is a cooperating agency with CBP on this EA. The National strategy that directed the INS to "…gain, maintain, and extend control…" of the border region also mandated the involvement of the Department of Defense (DoD) in these efforts (Northcom 2005). As a result, in 1989, the Secretary of Defense defined a significant role in the border protection effort for the JTF-6. The JTF-6 was formed as a military command that provides assistance and support to various enforcement agencies. This assistance is provided at sites located throughout the continental U.S. and U.S. territories. In September 2004, JTF-6 became JTF-N as the task force expanded its role in homeland defense operations. JTF-N synchronizes and integrates DoD operational, engineering, technological, training and intelligence in support of the OBP and other agencies. JTF-N will continue this effort, as directed by the National Defense Authorization Act (P.L. 101-510, as amended).

The mission of JTF-N is to detect, monitor, and support the interdiction of suspected trans-National threats within and along the approaches to the continental U.S.; fuse and disseminate intelligence, contribute to the common operating picture; coordinate support to lead Federal agencies; and support security cooperation initiatives in order to secure the homeland and enhance regional security (Northcom 2005).

JTF-N provides support to the OBP using active duty, Reserve and National Guard units from all military branches. The OBP obtains military assistance through support requests forwarded to the Border Patrol Special Coordination Center, who then forwards the support request to JTF-N. JTF-N then staffs the request and, with appropriate approval, identifies a unit that is willing and available to provide the requested support. Proposed projects must be able to satisfy the training requirements of the participating military unit. A portion of each unit's respective Mission-Essential Task List must be accomplished during each JTF-N operation.

1.2.2 Tohono O'odham Nation

Due to the unique nature of the TON and structural differences between the TON and CBP the TON have not been included as a cooperating agency. However, the TON has been an integral member of the planning and review team for the development of this EA. The TON has been included in all phases of project design and will continue to be included as a member of the planning team. The TON have reviewed all phases of the EA, have participated in numerous field visits, and have passed two legislative resolutions stating that the TON accepts and supports the proposed CBP project (Appendix A).

The CBP's relationship with the TON has been ongoing for many years and is demonstrated through the numerous projects that the CBP has implemented on the TON. Coordination amongst the TON and the CBP has occurred for not only this project but many others that have occurred on the TON. Some of these past projects include the installation of Papago Farms Camp, the construction of the Joint Processing Center at San Miguel, installation of several OBP checkpoints located throughout the TON, and the installation of rescue beacons within the TON. Furthermore, the OBP has over the past years maintained patrol roads, established remote forward operating bases (Papago Farms Camp), conducted regular and recurring patrol activities, all of which have been coordinated with the appropriate levels of the TON government as well as Tribal Law enforcement personnel.

1.3 AREAS OF OPERATION

As mentioned previously, the installation of PVBs as well as the improvements made to the existing patrol and access roads are proposed within the Ajo and Casa Grande stations' AOs. The Ajo Station's AO consists of approximately 9,000 square miles, and approximately 80 linear miles of the U.S.-Mexico border, all within Pima County. The Ajo Station's AO includes the

western region of the TON and portions of the Cabeza Prieta National Wildlife Refuge (CPNWR), Organ Pipe Cactus National Monument (OPCNM), and Barry M. Goldwater Range (BMGR).

The Casa Grande Station's AO encompasses a total of approximately 42 linear miles of the U.S.-Mexico border all within Pima County. The entire AO for the Casa Grande Station consist of 10,596 square miles within Pima and Pinal counties. The station's AO includes the TON, U.S. Bureau of Land Management (BLM), and state lands.

The southern boundary of the project corridor is defined by the U.S.-Mexico border throughout the TON. Additionally, the construction of the PVBs would occur within the Roosevelt Reservation to the greatest extent possible. The improvements to the existing patrol and access roads as well as the construction activities associated with these improvements would occur within lands owned and managed by the TON.

1.4 REGULATORY AUTHORITY

The primary sources of authority granted to OBP agents are the Immigration and Nationality Act (INA), found in Title 8 of the United States Code (USC), and other statutes relating to the immigration and naturalization of aliens. The secondary sources of authority are administrative regulations implementing those statutes, primarily those found in Title 8 of the CFR (Section 287), judicial decisions, and administrative decisions of the Board of Immigration Appeals. In addition, the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA) and subsequently the Homeland Security Act, mandates DHS to acquire and/or improve equipment and technology along the border, hire and train new agents for the border region, and develop effective border enforcement strategies.

Subject to constitutional limitations, OBP agents may exercise the authority granted to them in the INA. The statutory provisions related to enforcement authority are found in Sections 287(a), 287(b), 287(c), and 287(e) [8 USC § 1357(a,b,c,e)]; Section 235(a) [8 USC § 1225]; Sections 274(b) and 274(c) [8 USC § 1324(b,c)]; Section 274(a) [8 USC § 1324(a)]; and Section 274(c) [8 USC § 1324(c)] of the INA. Other statutory sources of authority are Title 18 of the United States Code (18 USC), which has several provisions that specifically relate to enforcement of the immigration and Nationality laws; Title 19 [19 USC § 1401(i)], relating to U.S. Customs Service

cross-designation of immigration officers; and Title 21 [21 USC § 878], relating to Drug Enforcement Agency cross-designation of immigration officers.

1.5 PURPOSE AND NEED

The U.S. experiences a substantial influx of IAs and drugs each year. Both of these illegal activities cost U.S. citizens billions of dollars annually due directly to criminal activities, as well as the cost of apprehension, detention, and incarceration of criminals, and indirectly in loss of property, illegal participation in government programs, and increased insurance costs. In response to these increases in illegal activities, the U.S. Congress passed the IIRIRA in 1996. Title I, Subtitle A, Section 102 of the IIRIRA states that the Attorney General, in consultation with the Commissioner of INS (now CBP), shall take such actions as may be necessary to install additional physical barriers and roads in the vicinity of the U.S. border to deter illegal crossings in areas of high illegal entry into the U.S. The combination of physical barriers and roads, in conjunction with adequate resources (*e.g.*, vehicles, field agents, support personnel), is essential for the safety of the OBP agents and the effective enforcement of the border strategy, and integral to the success of the OBP to gain, maintain, and extend control of the U.S. border.

The TON and adjacent areas have become inundated in the recent past with illegal vehicle traffic or drive throughs, as access across the border is easily afforded due to insufficient barriers (*i.e.,* barriers present in this area range from a barbed wire fence to no barrier at all). With the increased OBP enforcement efforts in Nogales, Douglas, and Naco, Arizona and in San Diego, California (*i.e.*, Operation Gatekeeper), IAs and illegal smugglers have shifted their activities to other areas throughout the southwestern border, including remote desert areas, such as the TON. Current or proposed infrastructure projects in the region include the completion of the OPCNM barrier by the National Park Service (NPS), future extension of the primary border fence to Avenue C in Yuma, the future construction of 37 miles of permanent vehicle barriers on the BMGR, and the proposed construction of permanent vehicle barriers across the CPNWR (Figure 1-2). The OBP has also increased its presence within the TON through the creation and use of the Papago Farm Camp detail (see Figure 1-2). The Papago Farm Camp was initiated as a temporary camp detail in late Fiscal Year (FY) 2003. Drive throughs were steadily increasing until the development of the camp, which is reflected in the decrease of drive throughs recorded within the TON. Since FY 2003, drive throughs have steadied but have still averaged more than 1,500 per year for FY 2004 and FY 2005. Figure 1-3

illustrates the number of known drive throughs within the TON for FY 2002 through FY 2005 (Hastings 2006).

IAs create illegal roads, trample vegetation, abandon vehicles, and start fires that destroy sensitive vegetation. Over 4 million pounds of trash and 10,000 cars were removed from the TON between October 2002 and December 2003 (United States General Accounting Office 2004). Illegal traffic has degraded and demolished cultural resources, as well as protected species habitat. The number of IAs entering the U.S. through the Arizona border has increased in recent years. As a result, the total number of rescues and deaths within the TON has increased as well. Rescues and deaths have increased within the TON by 22 percent and 264 percent, respectively, from FY 2003 through February 1 FY 2006. Figure 1-4 illustrates the number of deaths and rescues during this same time period (Hastings 2006).

Therefore, the purpose of the proposed action is to assist OBP agents in the detection and deterrence of illegal vehicle traffic and to further facilitate the OBP's mission to gain, maintain and extend control of the U.S.-Mexico border. Permanent physical barriers in remote locations are preferred for durability to vandalism and low maintenance requirements. This is important because the TON is an extremely remote location of the U.S.-Mexico border. The distance and time required to travel to the proposed corridor does not allow OBP agents to be present at all times to defend the proposed physical barriers; therefore, the proposed infrastructure must be designed to withstand vandalism and attempts at defeating the barrier. Temporary vehicle barriers in lieu of permanent vehicle barriers would be difficult to defend, could be easily

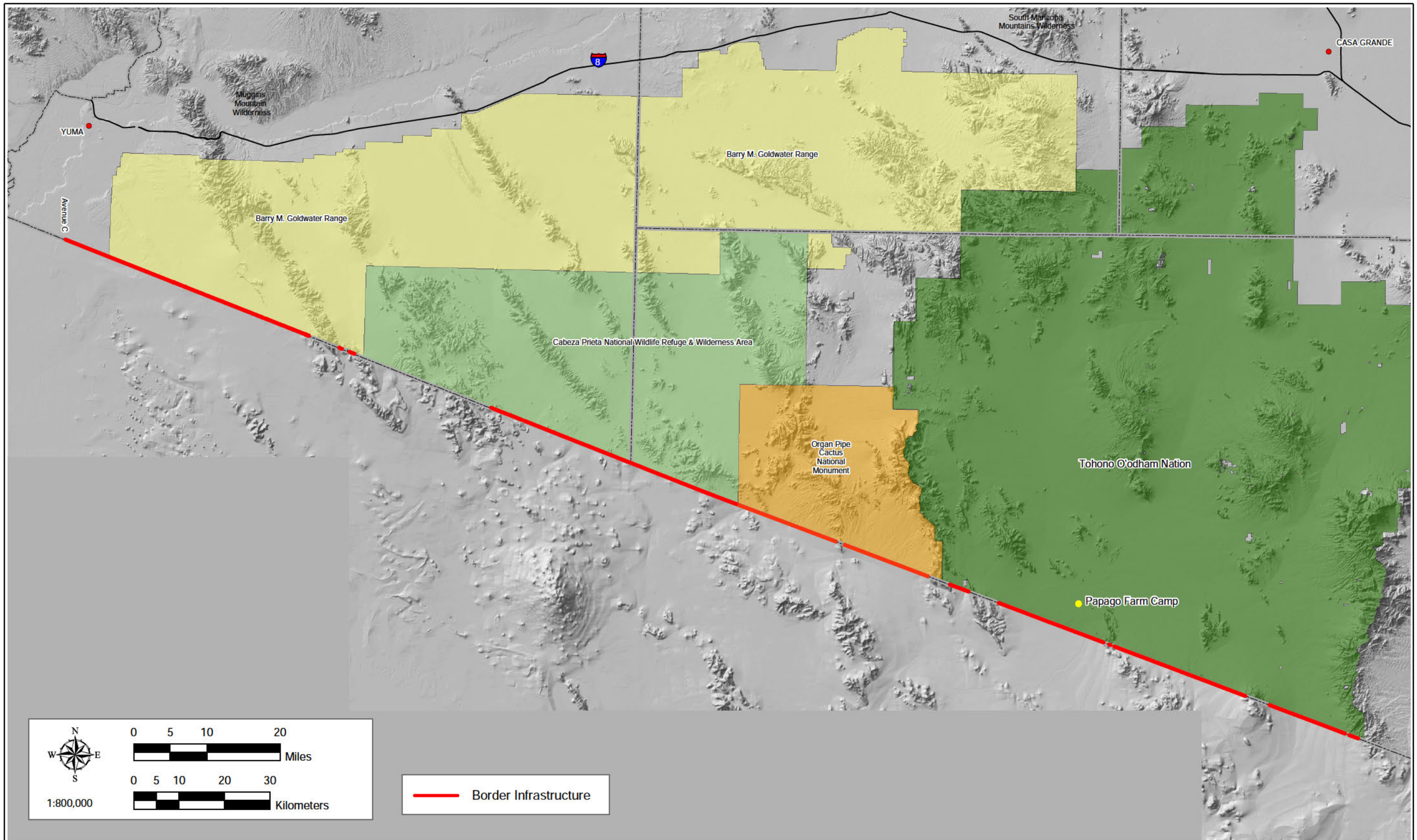

Figure 1-2: Proposed Border Infrastructure from Avenue C to Tohono O'odham Nation

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Figure 1-3. Number of known Drive Throughs within the TON from FY 02 through FY 05

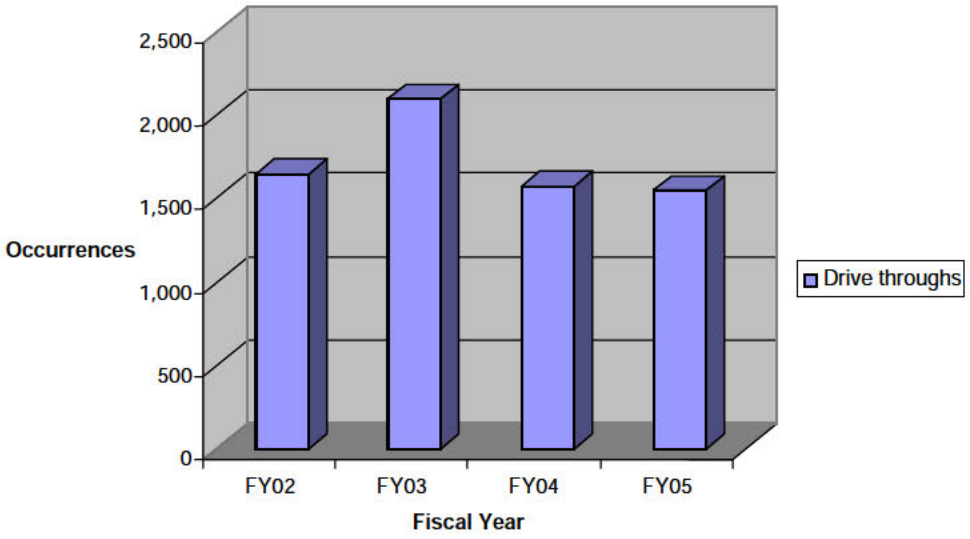
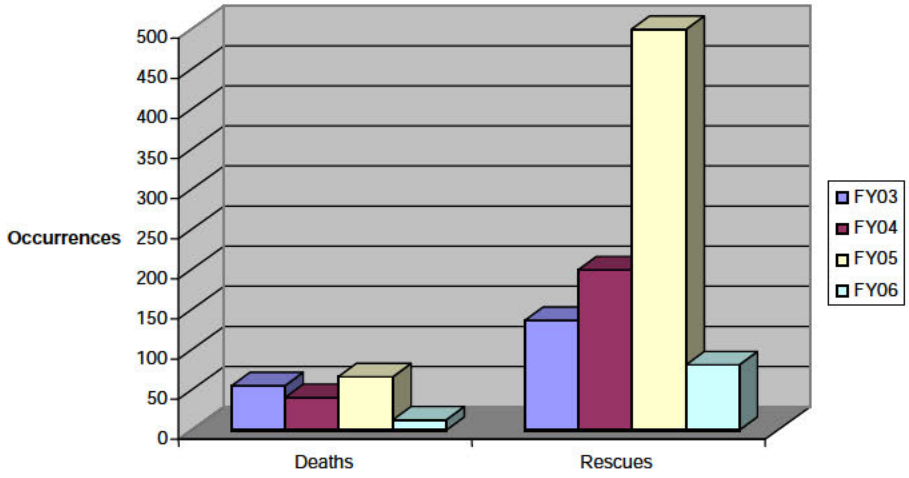


Figure 1-4. Number of Deaths and Rescues within the TON



* October 1 – August 15, 2006

vandalized or removed, and would require constant maintenance. The need for the Proposed Action Alternative is as follows:

- Save lives;
- Prevent illegal vehicle traffic from entering the U.S. at the TON-Mexico border;
- Satisfy the requirements of IIRIRA;

- Improve National security by deterring illegal vehicle traffic and terrorists;
- Enhance the safety, effectiveness, and environment in which to accomplish the OBP's mission;
- Provide flexibility in the deployment of OBP agents; and,
- Protect sensitive natural and cultural resources, as well as public and private lands from illegal vehicle traffic.

1.6 APPLICABLE ENVIRONMENTAL GUIDANCE, STATUTES AND REGULATIONS

This EA was prepared in accordance with, but not limited to the NEPA of 1969; Endangered Species Act (ESA) of 1973, as amended; the National Historical Preservation Act (NHPA) of 1966, as amended; and the Archeological and Historical Preservation Act of 1974, as amended. Table 1-1 summarizes the pertinent environmental statutes and regulations and regulations relative to the resource, as well as compliance requirements.

1.7 REPORT ORGANIZATION

This report is organized into nine major sections including this introduction, the description of the purpose and need, and location of the proposed project. Section 2.0 describes all alternatives considered for the project. Section 3.0 discusses the environmental resources potentially affected by the project, while Section 4.0 discusses the environmental consequences for each of the viable alternatives. Environmental design measures are discussed in Section 5.0, and public comments as well as the Notice of Availability (NOA) are presented in Section 6.0. The remaining sections 7.0, 8.0, and 9.0 present a list of the references cited in the document, a list of acronyms and abbreviations, and a list of the persons involved in the preparation of this document, respectively.

The Tohono O'odham Nation Resolution and a Memorandum of Understanding are found in Appendix A. Maps of the vegetation communities within the project corridor are provided in Appendix B. Appendix C includes the Material Data Safety Sheets (MSDS) for PennzSuppress, Road Oyl, and other construction materials. Appendix D includes the lists of Federal and state protected species. Appendix E contains the biological survey data recorded within the Roosevelt Reservation during GSRC's December 2005 surveys. Appendix F contains correspondence that was sent and received during the preparation of this EA. Appendix G includes the comments received during the public review process and OBP's corresponding responses.

Table 1-1. Summary of Guidance, Statutes, and Relevant Regulations Including Compliance Requirements

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status
Sound/ Noise	Noise Control Act of 1972 (42 USC 4901 et seq.), as amended by Quiet Communities of 1978 (P.L. 95-609)	United States Environmental Protection Agency (USEPA)	Compliance with surface carrier noise emissions
Air	Clean Air Act and amendments of 1990 (42 USC 7401-7671q) 40 CFR 50, 52, 93.153(b)	USEPA and Arizona Department of Environmental Quality (ADEQ)	Compliance with National Ambient Air Quality Standards (NAAQS) and emission limits and/or reduction measures; Conformity to *de minimus* thresholds
Water	Clean Water Act of 1977 (33 USC 1342) 40 CFR 122	ADEQ	Section 402(b) Arizona Pollutant Discharge Elimination System (APDES) General Permit for Storm Water Discharges for Construction Activities-Storm Water Pollution Prevention Plan (SWPPP)
	Executive Order (EO) 11988 (Floodplain Management), as amended by EO 12608	Water Resources Council, Federal Emergency Management Agency (FEMA), CEQ	Compliance
	EO 11990 (Protection of Wetlands), as amended by EO 12608	U.S. Army Corps of Engineers (USACE) and U.S. Fish and Wildlife Service (USFWS)	Compliance
	Clean Water Act of 1977 (33 USC 1341 et seq.)	USACE and Arizona Department of Water Resources	Section 401/404 Permit
Soils	Resource Conservation and Recovery Act of 1976 (42 USC 6901-6992k), as amended by Hazardous and Solid Waste Amendments of 1984 (P.L. 98-616; 98 Stat. 3221)	USEPA	Proper management, and in some cases, permit for remediation
	Comprehensive, Environmental Response, Compensation, Liability Act of 1980 (42 USC 9601-9675), as amended by Emergency Planning and Community Right-To-Know-Act of 1986 (42 USC 11001 et seq.) Release or threatened release of a hazardous substance	USEPA	Development of emergency response plans, notification, and cleanup

Table 1-1, continued

Issue	Action Requiring Permit, Approval, or Review	Agency	Permit, License, Compliance, or Review/Status
Soils	Farmland Protection Policy Act of 1981 (7 USC 4201 et seq.) 7 CFR 657-658 Prime and unique farmlands	Natural Resource Conservation Service (NRCS)	NRCS determination via Form AD-1006
Natural Resources	Endangered Species Act of 1973, as amended (16 USC 1531-1544)	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures
	Migratory Bird Treaty Act of 1918	USFWS	Compliance by lead agency and/or consultation to assess impacts and, if necessary, develop mitigation measures
Health and Safety	Occupational Safety and Health Act of 1970	Occupational Safety and Health Administration (OSHA)	Compliance with guidelines including Material Safety Data Sheets
Cultural/ Archaeological	National Historic Preservation Act of 1966	Advisory Council on Historic Preservation through State Historic Preservation Officer	Section 106 Consultation
	Archeological Resources Protection Act of 1979	Affected land-managing agency	Permits to survey and excavate/ remove archeological resources on Federal lands; Native American tribes with interests in resources must be consulted prior to issue of permits
Social/ Economic	EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) of 1994	USEPA	Compliance
Real Estate	Military Lands Withdrawal Act of 1999 (Public Law 106-65)	Department of Navy Naval Facilities Engineering Command, Southwest Division	Real Estate License or “use agreement” from affected land managing agency

SECTION 2.0
ALTERNATIVES

2.0 ALTERNATIVES

Five alternatives were identified and considered during the planning stages of the proposed project: Alternative 1 (No Action Alternative), Alternative 2 (Proposed Action Alternative), Alternative 3 (2-Track Primitive Trail and PVBs along the Border Alternative), Alternative 4 (New Patrol Road and PVBs along the Border Alternative), and Alternative 5 (PVBs on Existing Patrol Road Alternative). The following paragraphs describe the alternatives considered.

2.1 NO ACTION ALTERNATIVE

The No Action Alternative would preclude the installation of any permanent vehicle barriers, as well as improvements to the existing border patrol road and access roads on the TON. Consequently, the OBP's deterrence and apprehension effectiveness along the international border in the TON would remain limited due to the lack of infrastructure. This reach of the U.S.-Mexico border, which is shared with the TON, lies between proposed or existing vehicle barriers on the BMGR, CPNWR, OPCNM, and Nogales, Arizona. Limited infrastructure along the TON reach of border makes this area vulnerable to shifting IA traffic. Illegal entries would continue, and potentially increase, resulting in the damage and degradation of habitat as well as possibly increasing deaths and rescues within the TON. Illegal vehicle entry and smuggling along the international border would not be deterred under this alternative.

The No Action Alternative does not meet the purpose and need for the proposed project, but will be carried forward for analyses, as required by the CEQ regulations. The No Action Alternative describes the *status quo* in the absence of any action alternative.

2.2 PROPOSED ACTION ALTERNATIVE

The Proposed Action Alternative corridor encompasses approximately 60 linear miles along the U.S.-Mexico border and includes the proposed installation and maintenance of PVBs, improvements and maintenance to the existing border road and four access roads, construction of a 16-foot wide 2-track primitive trail, and placement of temporary vehicle barriers in selected areas (Figures 2-1a and 2-1b). Although the project encompasses 60 linear miles along the border, only 50 miles of PVBs would be constructed under this alternative. The remaining 10 miles of border is inaccessible by vehicle due to topographic features and would not have PVBs installed.

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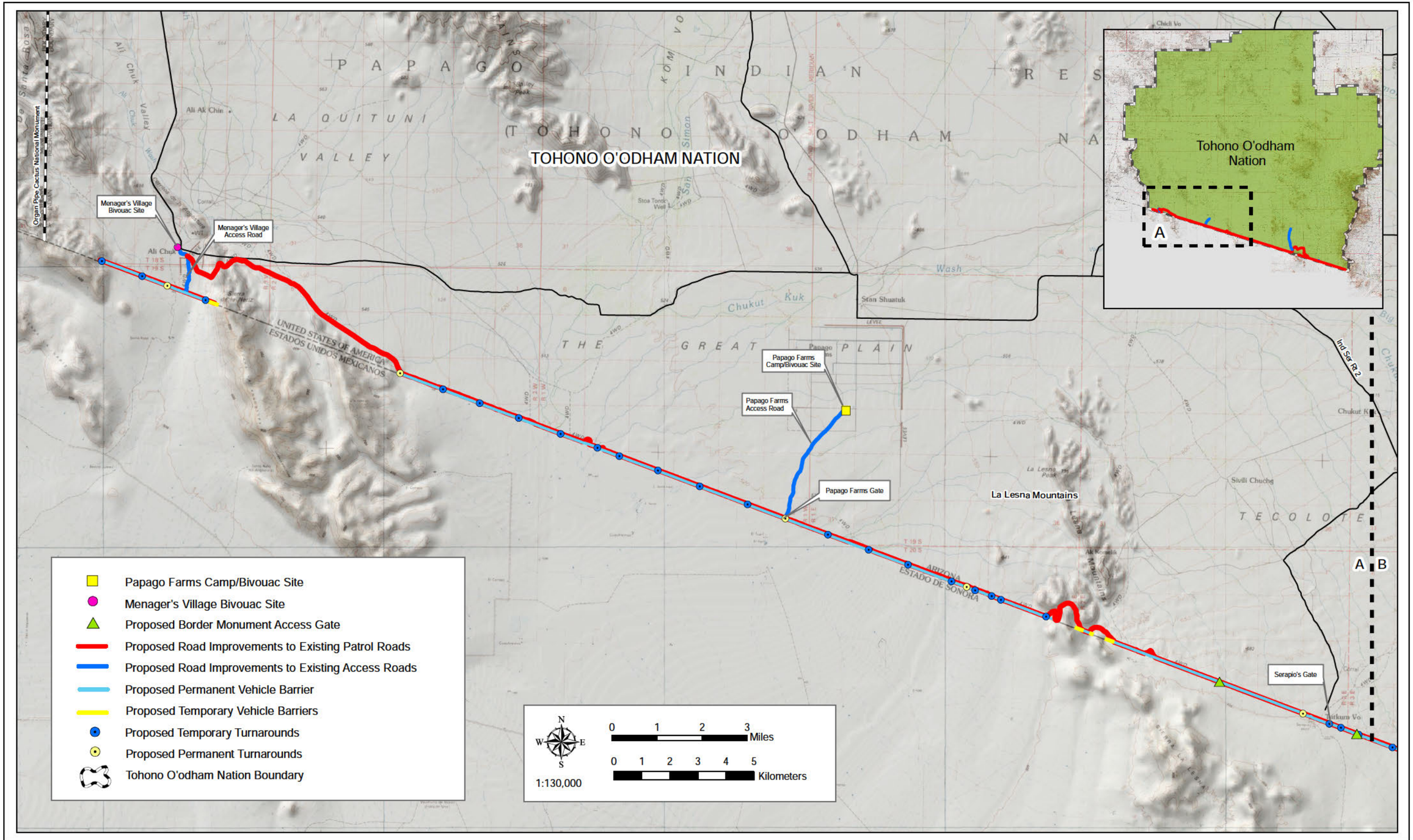

Figure 2-1a: Proposed Action Alternative

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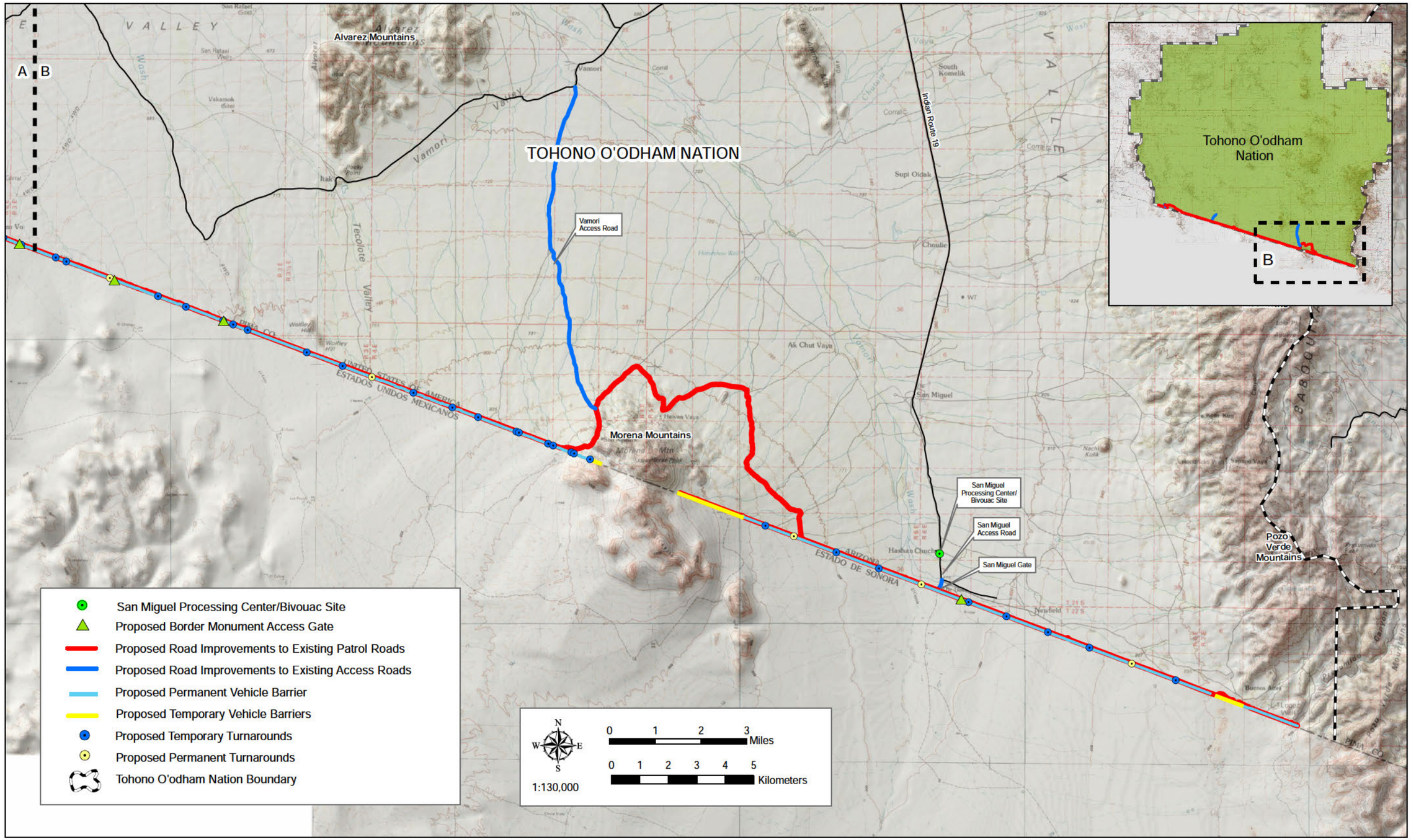

Figure 2-1b: Proposed Action Alternative

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PVBs are permanent structures designed to prevent illegal entry of vehicles across the U.S.-Mexico border. They are not designed to preclude pedestrian or wildlife movement. The PVBs are typically placed on the north side of the U.S.-Mexico border, as close to the border as physically possible. The traditional design for PVBs is to place a steel pipe (approximately 6 to 8 inches in diameter) into the ground 4 to 6 feet, fill the pipe with concrete, and weld railroad rail or pipe along the tops of the support pipes in a horizontal manner (Photograph 2-1). The vertical support pipes are placed in the ground on 4 to 5 foot centers. Maintenance would be performed on an as needed basis to ensure the integrity of the PVBs. Additionally, the PVBs would be outfitted with a single strand of smooth wire that would parallel the horizontal rail no lower than 20 inches from the ground for the purposes of preventing livestock from crossing the barrier. Figure 2-2 is a schematic drawing of a typical PVB.

Photograph 2-1. Traditional Style PVB

An alternative method, which could be implemented, is the use of bollard-style PVBs. The bollard-style PVB is currently being tested as a pilot program; however, it could be implemented as an alternate method to installing PVBs. This construction method uses a push system for the installation of PVBs. Steel pipes (approximately 10 inches in diameter) are physically pushed into the soil on approximately 4-foot centers (Photograph 2-2). Sand, soil and rock fragments are pumped out of pipe. A pre-cast concrete billet is inserted into the hollow core of the pipe. Up to three strands of smooth wire (approximately 14 inches apart) would be attached to the bollards to keep livestock from migrating across the border. The lowest strand of wire would be no lower than 20 inches from the ground. Figure 2-3 is a schematic drawing of a typical bollard style PVB. It should be noted that the bollard style PVBs would be installed within the same footprint as the traditional PVBs. Additionally, the bollard style PVBs generally does not require on-site concrete pours; therefore, no on-site water is

Photograph 2-2. Bollard Style PVB

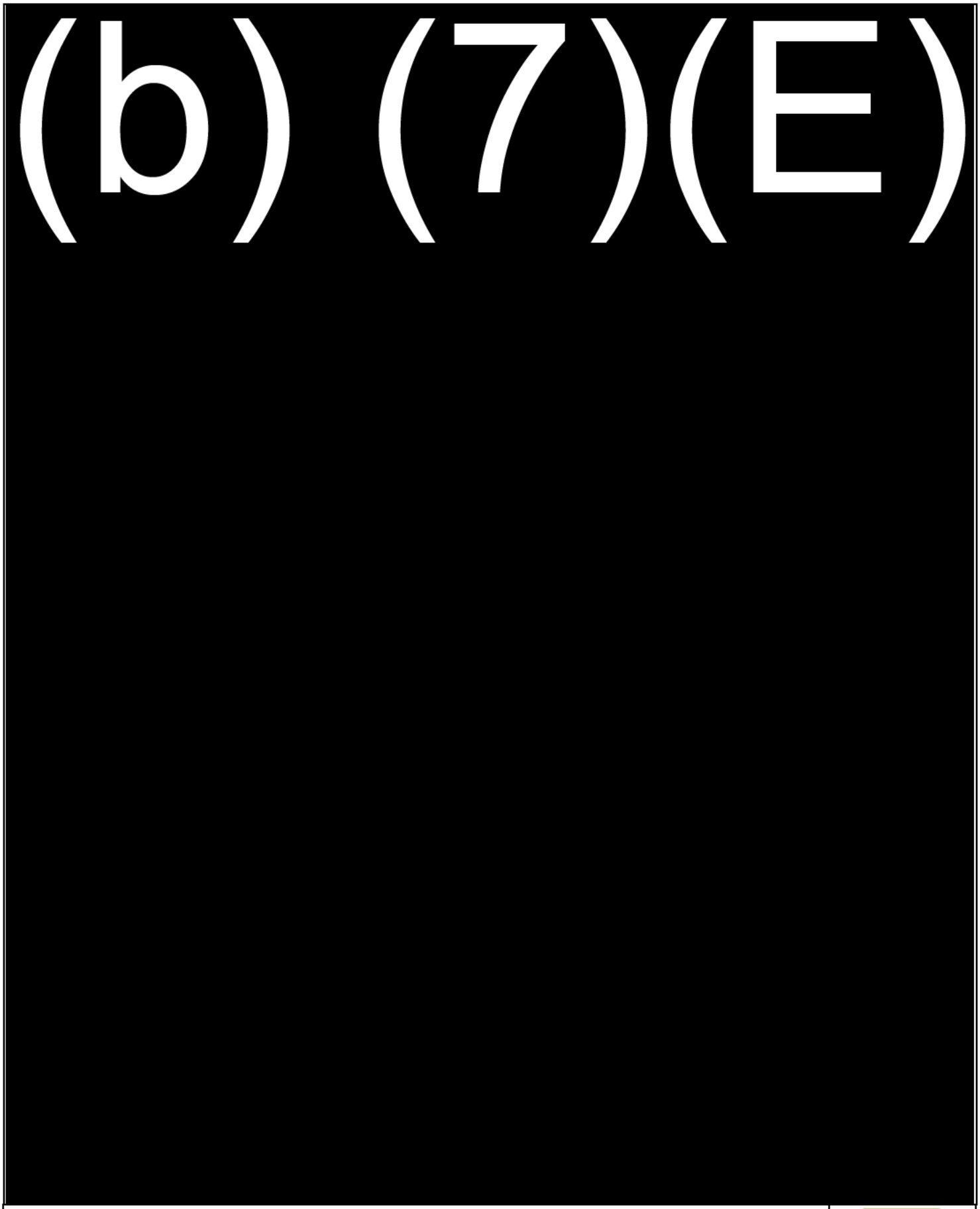

Figure 2-2: Schematic of Typical Permanent Vehicle Barrier Design

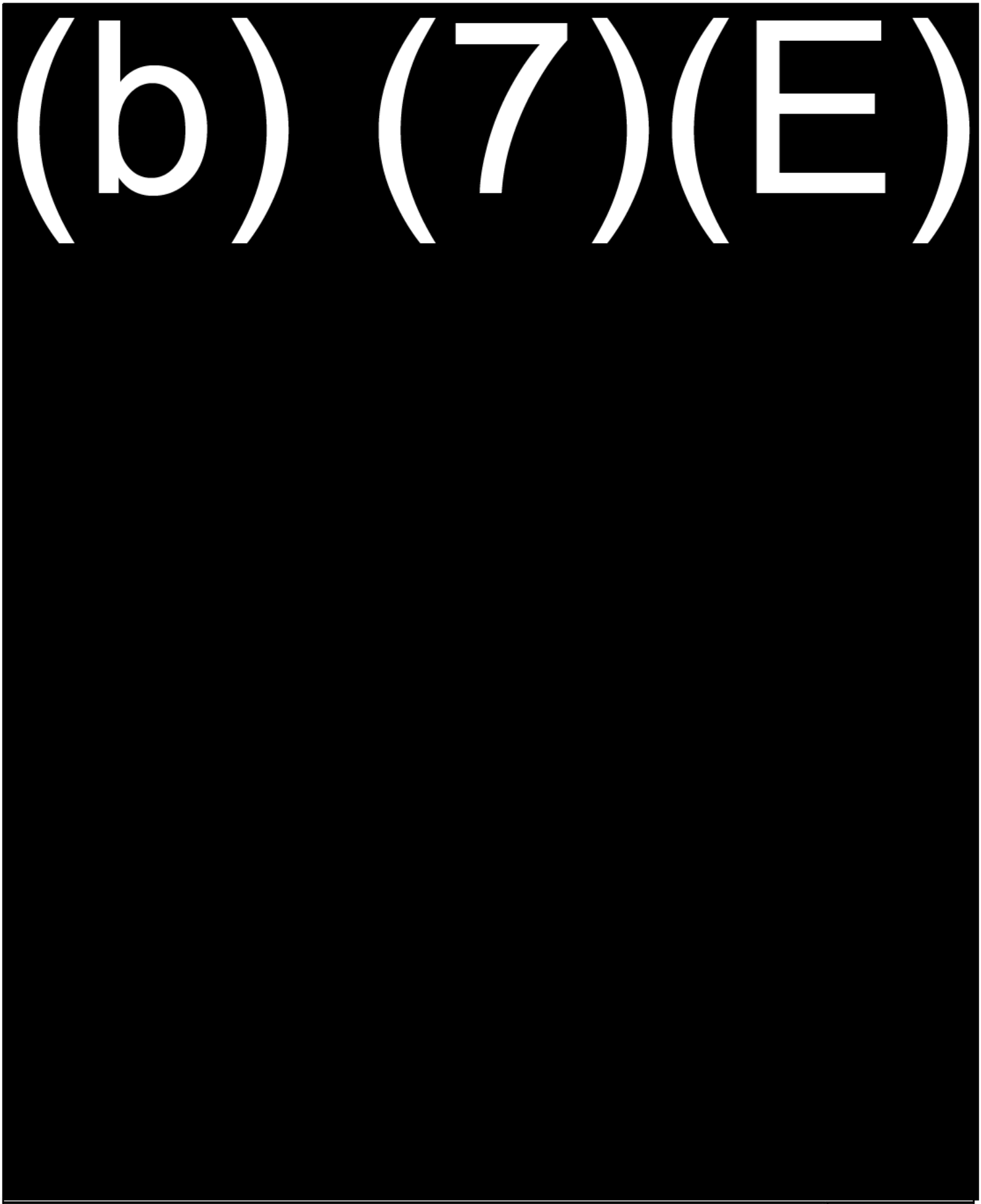

Figure 2-3: Bollard Style PVB Schematic

needed to construct the bollard style PVBs. It is not known at this time what design would be implemented for the proposed PVB. These designs are conceptual and modifications could be made as new ideas for efficiency and better protection are generated.

The Proposed Action Alternative in the Draft EA stated that in order to facilitate construction of the PVBs, a 2-track primitive trail would be created immediately adjacent to the border within the 60 foot Roosevelt Reservation for the length of the project corridor (approximately 50 miles). However, since the release of the Draft EA and through coordination with the TON, it has been established that potential impacts needed to be further minimized and/or eliminated to the following sensitive resources:

- Saguaros (*Carnegia gigantean*),
- California barrel cactus (*Ferocactus cylandraceaus*), and
- Cotton top cactus (*Echinocactus polycephalus*).

Therefore, in an effort to minimize and potentially eliminate any potential impacts to those sensitive resources it was established that only 35 miles of PVBs would be constructed immediately adjacent to the border using a 2-track primitive trail as construction access. The 2-track primitive trail would be approximately 16 feet wide and would be used to allow construction equipment to install the barriers. Upon completion of the construction process, the 2-track primitive trail would only be used for necessary maintenance of the PVBs and would not be further improved or patrolled.

The remaining 15 miles of PVBs would be installed along the existing patrol road (approximately 9 miles) located 60 feet north of the border and along an existing ranch road (approximately 6 miles) located between the patrol road and the border. The criteria used to delineate when and where the 2-track primitive trail would be applicable for use is as follows:

1. The PVBs/2-track primitive trail would remain immediately adjacent to the border until sensitive resources are encountered.
2. Upon encountering sensitive resources, if there is an existing ranch road, the ranch road would be used to install the PVBs rather than constructing a 2-track primitive trail. Therefore, the PVBs would deviate north from the border, extend north until meeting the ranch road and then follow the ranch road until the sensitive resource is avoided. Once the resource is avoided by the PVBs, the PVBs would return south to the border and continue along the border.